

City of Lakewood

Connected Health Community

90 Day Assessment Contract

PREPARED FOR

Mike Summers

Mayor, City of Lakewood

PREPARED BY

Paula Timco, MBA

nuboHEALTH, llc





January 30, 2018

Mayor Mike Summers
City of Lakewood

12650 Detroit Road
Lakewood, Ohio 44107

Dear Mayor Summers,

Re: Connected Health Community-90 Day Assessment Contract

Please find enclosed our 90 Day Assessment Contract for your approval.

"The Greatest Wealth is Health"-Virgil, 19 BC. Even in ancient Roman times, people in a community understood the value of health. In this 90-Day Assessment, "the team" comprised of healthcare experts from five companies (Pandata, mdlogix, nubohEALTH, UpShot Health and Balance Design) and led by nubohEALTH will work with key stakeholders to assess the current state of the health and wellness ecosystem in Lakewood. Within this assessment, the team will make recommendations and propose a Phase 1 vision to create "The Healthiest City in America" through the creation of a Connected Health Community.

In addition to assessing the health and wellness ecosystem, the team will look at the commercial viability of creating a Connected Health Community as well as the development of a center for future health related innovation and commerce.

We believe health happens in our communities. By working together, we can prove to Lakewood residents as well as our fellow citizens, we as a community can change healthcare in America.

The remainder of this document will outline the areas of concentration for the assessment, working methodology and deliverables.

On behalf of our team, I would like to thank you for this opportunity.

Yours Truly,

A handwritten signature in black ink that reads "Paula Timco".

Paula Timco, MBA
Partner & CSO
nubohEALTH, llc



1. Project Objective and Goals

The objective of this project is to perform a 90-day assessment to evaluate the current state of the health and wellness ecosystem in the city of Lakewood. Key areas for assessment include: data sources, information systems, health strategy, clinical (including behavioral health) and non-clinical resources, service utilization and community perception & alignment. By assessing these areas, “the team” can make recommendations to improve the ecosystem, align resources and initiate the creation of a Connected Health Community.

Goal 1: Identify opportunities within the current data & seek new sources of additional data

Goal 2: Map the resources in Lakewood’s current health & wellness ecosystem:

- Examples may include:
 - Healthcare delivery resources
 - Wellness resources
 - Information systems
 - Current health strategy (city)

Goal 3: Perform a sample claims review utilizing 2 years of City Employee data to better understand healthcare utilization

Goal 4: Identify a high-level vision for a Connected Health Community

Goal 5: Outline the potential for commercialization of a Connected Health Community product or service

Goal 6: Evaluate other economic drivers related to a Connected Health Community

2. Team Composition and Leadership

DATA REVIEW

Pandata Company Description

Pandata’s group of data scientists help organizations make better data-driven decisions. We are thought leaders in the emerging discipline of data science that combines business acumen with statistical savvy and development skill. Our unique approach addresses the people, process, and technology required to unlock meaningful stories in data that impact the bottom line for our clients.

Leadership’s Bio

Cal Al-Dhubaib is a data science thought leader in Northeast Ohio. Over the past five years, he has led teams to solve complex problems in organizations ranging from small business to fortune five hundred. He is the first data science graduate from Case Western Reserve University and has received national and international recognition for innovation in predictive modeling and entrepreneurship. Cal is passionate about Northeast Ohio and sits on several advisory boards to advocate for careers and educational pathways in data science.



INFORMATION TECHNOLOGY REVIEW

nuboHEALTH Company Description

nuboHEALTH is a healthcare IT solutions company, founded by four former Cleveland Clinic employees. We understand healthcare from operations to workflow to HIT systems and we build custom applications that connect current systems. Using our HIPAA compliant API, built with SMART on FHIR standards, we can seamlessly authenticate, transmit and integrate data from other applications and devices into a central, single source of information (i.e. EHRs). We take healthcare data and create useful interfaces that provide end users with information that matters, at the right time, in the right place, when they need it.

Leaderships' Bios

Paula Timco | Healthcare Strategy and Workflow Development. Paula has more than 20 years of experience in strategic healthcare development, including process improvement, and product and technology development for domestic and international healthcare organizations, including work on the founding team for Cleveland Clinic's Innovation Center.

Mike Speck | HealthCare IT and Software Development. Mike provides leadership in programming and technological development management. With more than 20 years of experience in healthcare IT, including work at the Cleveland Clinic, Mike has worked closely with clinical experts on a regular basis to develop a variety of custom clinical applications.

HEALTHCARE DELIVERY (including Behavioral Health) RESOURCE REVIEW

mdlogix Company Description

mdlogix is a behavioral health IT product firm that seeks to improve the quality of healthcare in America by developing innovative technology that identifies and solves large-scale health problems. Their behavioral health integration platform, BH-Works, is used in diverse settings to provide measurement-based care to people with behavioral health problems.

Leadership's Bio

Shane McNamee M.D. is a practicing, board certified physical medicine & rehabilitation physician. Shane spent years supporting the physical and psychological issues of the severely combat wounded and combat exposed veterans. Prior to joining mdlogix, Shane served in the Department of Veterans Affairs in a variety of roles designing, building, and delivering highly usable tools to improve healthcare delivery. His areas of expertise include health data Interoperability, User Centered Design, and process re-engineering. Shane graduated from the Medical College of Ohio and completed residency in Physical Medicine & Rehabilitation at the Virginia Commonwealth University.



STRATEGY REVIEW

Balance Innovation & Design Company Description

Balance Innovation & Design is a strategic human-centered design consultancy that balances end-user needs with business expectations. We empower innovation by developing an understanding of end-user behaviors, motivations, attitudes, and needs to uncover exactly what will delight customers. We fully immerse ourselves to learn your business from end-user research, to trend analysis, to product & experience design, to business and product strategy.

Leadership's Bio

Jonathan Morgan is a veteran Human-Centered Designer, Researcher and Strategist. His professional and academic experience has covered everything from ubiquitous computing and pervasive technology to medical device and service design to omnichannel retail strategy. He holds a Master of Science in Information Architecture and Knowledge Management and is currently the Director of Emerging Experiences at Balance Innovation & Design.

CLAIMS REVIEW

UpShot Health Company Description

UpShot Health is an independent operator of on-site health and wellness centers dedicated to providing cost-effective, quality patient care with a focused approach on clinical excellence, patient safety, and health plan saving. Michael and his team continue to develop the UpShot Health direct primary care practice for self-funded employers using advanced population health management tools. Through the data analytics platform, the UpShot Health clinical team are able to personalize the health care services provided to their patient clients.

Leadership's Bio

Michael Mitchell began his health care career at CIGNA Health Care as an underwriter. He advanced his career to senior level leadership positions at HealthSmart Holdings part of Emerald Health and Bravo Wellness prior to founding UpShot Health. Michael is a frequent national speaker on the topics of value-based insurance design, Rx transparency pricing strategies, ACO-focused health analytics, and the practical application of corporate wellness programs in an outcomes-based environment. Michael has a strong commitment to civic and community programs and is a board member of North Coast Health, a non-profit health clinic organization.



3. Statement of Work

“The Team” using the below stated methodology will work collectively to assess the key areas that comprise Lakewood’s health and wellness ecosystem. Collectively, “the team” will analyze data, evaluate information systems, review strategy, collect new data and map healthcare delivery and wellness resources to understand the current state of the health and wellness ecosystem. For the data analysis, the team will use a cohort sampling approach as well as limited community sampling approach to obtain both quantitative and qualitative information. In the cohort sampling approach, we will look at healthcare services utilized by City Employees. In the limited community sampling approach, we will target three specific areas that reflect the “voice of the citizens”. From the information collected, “the team” will create a set of hypotheses from which to identify initial gaps in the current ecosystem. From gap analysis, “the team” will make initial recommendations and propose a vision for a Phase 1 Connected Health Community model.

Methodology

1. Data Awareness & Discovery -Qualitative and Quantitative

Understand how your data is used today and identify opportunities to enrich current data as well as collect new streams of data

- City Employee Group (cohort sample group)
 - Quantitative-derived from current systems (**Pandata**) (**Upshot Health**):
 - Claims Data-utilization of healthcare services
 - Other sample data sets could include:
 - Absentee data
 - Demographic data
 - Qualitative-collect data via group discussion/focus group (**mdlogix, Pandata, Balance, nubio**):
 - Sample data sets could include:
 - Patterns of use (what works, what doesn’t)
 - Use of specific services including Behavioral Health
- Limited Community Sample Groups: small business, citizens, schools
 - Quantitative-derived from current systems-**(Pandata)**:
 - Sample data sets could include:
 - Ambulance Run Data
 - Missed Days-School attendance
 - Qualitative-collect data via group discussion/focus group (**mdlogix, Pandata, Balance, nubio**):
 - Sample data sets could include:
 - Healthcare challenges
 - Patterns of use
 - Use of specific services including Behavioral Health

2. Data & Information Systems Review

- Assess data quality and completeness (**Pandata**)
- Identify highest priority information systems based on findings from previous section (1) (**nubo**)
- Review highest priority information systems to understand how data is used, stored, governed and transferred (**nubo**)
 - Sample systems may include:
 - Lakewood City Systems-Water, Residents Database,
 - North coast Health
 - YMCA
 - Library
- Within priority IT systems, assess IT architecture and ability to integrate amongst other systems (**nubo**)
- Identify internal IT resources within the City of Lakewood's (i.e. City Hall/local government) (**nubo**)

3. Healthcare Delivery and Wellness Resource Mapping

- Identify relevant healthcare delivery resources (**mdlogix**)/ wellness resources (**Balance**) and how they function within Lakewood
 - Sample elements that outline function may include:
 - Service Offerings
 - Human Resources-staff, board of directors, programs, membership and target population they serve
 - Physical Resources-geographic location and accessibility
 - Informational Resources-formal and informal networks of communication
 - Political & Funding Resources-, non-profit, for profit, affiliations, grants, funding
 - Existing Intervention Resources-initiatives that are already occurring (i.e. pre-diabetes monitoring)

4. Strategy Review

- Review the current City of Lakewood health strategy for alignment with Connected Health Community task force (**Balance**)
- In cooperation with City Leadership, engage with related health and wellness consultants or committees (i.e. ReThink, Resiliency Group) (**nubo, Balance**)
- Economic drivers: (**nubo and mdlogix**)
 - Promoting current businesses
 - Attracting new business
 - Growing innovation
 - Commercialization

5. Analysis, Gap Identification and Recommendations (Entire Team)

Develop a set of hypotheses based on:

- Identified healthcare needs vs. services provided
- Macro-level trends in the behaviors driving healthcare resource use in the community
- Information systems interoperability
- Data quality, availability and comprehensiveness



6. Solution Architecture (Entire Team)

Using recommendations, develop Phase 1 vision of a Connected Health Community that includes:

- Data science solutions
- An interoperable information technology platform
- Behavioral, cultural and learning system design factors
- Unique care delivery models
- Economic drivers

Deliverables

- 1. High level data and technology review of community health & connectivity**
- 2. Mapping and documentation of relevant healthcare delivery and wellness resources with comparison to community needs**
- 3. Recommendations and Solutions: A high-level vision for a Phase 1-Connected Health Community**

4. Assumptions

- The City of Lakewood is interested in improving the health and wellness infrastructure of their city and has committed resources (both financial and personnel) in doing so.
- The City of Lakewood has expressed interest in exploring the concept of a Connected Health Community with nuboHEALTH and designated “team”.
- The general definition of a Connected Health Community is one in which the community uses technology and data to understand on an ongoing basis the health and wellness needs of its citizens. Where by the community utilizes technology to connect, educate and inform its citizens based on the established health and wellness needs.
- A 90-day assessment deliverable will be to define the Lakewood’s vision of a Connected Health Community.
- This 90-day assessment is designed to serve as is an initial evaluation of the operational effectiveness and suitability of the current health and wellness ecosystem of Lakewood. Ongoing assessment, discovery and evaluation within future phases of the project will be necessary to fully understand and optimize Lakewood’s health and wellness ecosystem.
- “The Team” will be granted access to the necessary systems, data and personnel in Lakewood to perform the 90-day assessment.
- To better understand proposed health and wellness initiatives and eliminate redundancy, it is essential that the Connected Health Community “team” be in communication with other consultancies (i.e.-ReThink) and planning groups/boards (i.e. Resiliency, Hospital Board) via Lakewood city leadership.
- A joint community & public relations messaging strategy and communication plan will be established between the City of Lakewood and nuboHEALTH (representing “the team”)



5. Requirements-Provided by the City of Lakewood

Information Resources:

- List of current data sources
- List of current applications
- Access to strategy documents & committees—i.e. Resiliency
- Access to related contract services/consultants—i.e. ReThink
- Access to city employee medical claims (2 years)
- Key contacts list—name, area of responsibility, phone, email, admin info
- Internal communication of the 90 Day Assessment to key stake holders

Personnel Resource:

- Internal Project Manager or Executive Sponsor (“go to” person)
- Coordination/administrative resource
- Identification and access to key personnel critical to completing the 90-day assessment (TBD)

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6. Effort

Total estimation of hours: 642 hours-SAMPLE SCHEDULE-Varies depending on agreed start date

NEED	COMPANY RESPONSIBLE	DETAILS	Q1-2018														
			FEBRUARY					MARCH					APRIL				
			5	12	19	26	26	5	12	19	26	2	9	16	23	30	
Data Review	Pandata-Cal Al-Dhubaib	Establish sources of current data															
		Obtain & review quality of current data collected															
		Understand current data governance															
		Identify opportunities to enrich current data															
		Map out data transformations and sources for critical KPI's															
		Proposed future state data collection and analytic needs															
Information Systems Review	nuboHEALTH-Paula Timco & Mike Speck	Identify current IT systems/software in use															
		Who oversees what systems															
		How are the systems used															
		How are certain processes tracked and measured--i.e. employee work time															
		Identify gaps in system processes and data management															
		Propose integrated solutions															
Strategy Review	Balance Design-Jonathan Morgan	Identify Current Partners & Resources---internal (YMCA) and external (ReThink)															
		Identify high-level vision for what a Connected Health Community looks like															
		Identification of key influencers and decision makers															
		Identification of Gaps, Risks and Barriers															
		Develop KPIs against current metrics--i.e. definition of community health															



This agreement states the terms and conditions that govern the contractual agreement between nuboHEALTH having its principal place of business at 3615 Superior Avenue, Suite 3103i, Cleveland, Ohio 44114 (the "Consultant"), and City of Lakewood (the "Client") who agrees to be bound by this Agreement.

WHEREAS, the Consultant offers consulting services in the field of healthcare; and

WHEREAS, the Client desires to retain the services of the Consultant to render consulting services with regard to a 90 day assessment according to the terms and conditions herein.

NOW, THEREFORE, In consideration of the mutual covenants and promises made by the parties hereto, the Consultant and the Client (individually, each a "Party" and collectively, the "Parties") covenant and agree as follows:

7. Terms

This Agreement shall begin on ²⁶February XX, 2018 and continue for a period of 90 days.

1. This contract as written is valid for 60 days from delivery.
2. This contract constitutes a 90-day assessment for the discovery of the current state of Lakewood's health and wellness infrastructure. nuboHEALTH and "the team" request the first of right of consideration for proposals beyond the 90-day assessment to improve the health and wellness infrastructure in Lakewood and create a Connected Health Community.
3. A mutually acceptable date following the 90-day assessment will be established to present findings and recommendations.
4. The period of 90 days maybe extended by 30 days, not to exceed 120 days
5. All tools, software, subject matter expertise and/or techniques used to perform this assessment are the sole property of the company in possession of such tools, software, subject matter expertise and/or techniques at the time of this assessment.

8. Compensation

In consideration for the 90 Day Assessment, the City of Lakewood shall pay \$55,000. The team will be paid through nuboHEALTH who will serve as the general contractor for this engagement. Lakewood will be invoiced \$27,500 at 45 days from the start date and the remaining \$27,500 at the completion of the assessment. Payment is due and payable within 30 days of receipt of the invoice payable to nuboHEALTH. Electronic fund transfer (EFT) is preferred. Should the client be unable to perform EFTs, funds can be remitted to: nuboHEALTH, 3615 Superior Avenue, Suite 3103i, Cleveland, Ohio 44114.

9. Confidentiality

The Consultant or "team" shall not disclose to any third party any details regarding the Client's business, including, without limitation any information regarding any of the Client's customer information, business plans, or price points (the Confidential Information), (ii) make copies of any Confidential Information or any content based on the concepts contained within the Confidential Information for personal use or for distribution unless requested to do so by the Client, or (iii) use Confidential Information other than solely for the benefit of the Client.



10. Indemnification

~~The Client agrees to indemnify, defend, and protect the Consultant and "team" from and against all lawsuits and costs of every kind pertaining to the Client's business including reasonable legal fees due to any act or failure to act by the Client based upon the Consulting Services.~~ ^{sup} JLS

11. No Modification Unless in Writing

No modification of this Agreement shall be valid unless in writing and agreed upon by both Parties.

12. Applicable Law

This Consulting Agreement and the interpretation of its terms shall be governed by and construed in accordance with the laws of the State of Ohio and subject to the exclusive jurisdiction of the federal and state courts located in Cuyahoga County, Ohio.

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13. Signature Page

IN WITNESS WHEREOF, each of the Parties has executed this Agreement, both Parties by its duly authorized officer, as of this day, February XX, 2018.
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[City of Lakewood]

Michael

[First name]

Summer

[Last name]

Mayor

[Title]

Michael P. Summer

[Signature]

[nuboHEALTH, llc]

Paula

[First name]

Timco

[Last name]

CSO

[Title]

Paula Timco

[Signature]

Approved As To Legal Form:

Jeffrey M. Scallio
Director of Law, City of Lakewood